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Uwe Skultety-Betz

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EXAMINER

WHITTINGTON, KENNETH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,882	Applicant(s) SKULTETY-BETZ, UWE	
	Examiner KENNETH J. WHITTINGTON	Art Unit 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-25, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment filed October 7, 2009 has been entered and considered.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 14-16, 18-20, 23, 24, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett (US3662255) in view of Hirschi et al. (US5325873), hereinafter Hirschi.

Regarding claim 14, Garrett teaches a hand-held locating device for detecting an object enclosed in a medium, comprising:

a housing having an opening penetrating there through (See Garrett FIGS. 1 and 9, item 32 or 32a or 50a);

at least one sensor system enclosed within an interior of the housing (See FIGS. 1 and 9, item 45 or 45a);

evaluation electronics enclosed within another portion of the housing (See FIGS. 1 and 9, note item 22);

at least one light source provided in the measuring device configured to illuminate the opening (See FIG. 9, items 200), and

a handle attached to the housing, the handle situated in close proximity to the housing so as to permit an operator to grasp the handle while operating the device for marking a surface of the medium (See FIG. 1, item 30 and see col. 7, lines 18-21);

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wherein the medium is situated outside of the locating device (See col. 7, lines 22-25, note the ground or a wall can be the medium which is located outside the device); and

wherein the housing includes an opening penetrating there through configured in size to guide a device for marking a surface of the medium (See Garrett FIGS. 1 and 9, item 32 or 32a or 50a, note that openings in the housing can accommodate a marker or pencil or other writing device therein or there through. Note also that the inner ring surface of the openings can be used to guide the marking device to draw a circle in the desired medium below the housing).

Garrett further teaches that the extension between the upper housing 22 for the electronics and lower housing 32, 32a or 50 for the sensor can be dispensed with such that the indicator assembly 32a is mounted on a small dimensional housing held directly by the operator (See Garrett col. 7, lines 18-21), but Garrett does not illustrate this embodiment. Hirschi teaches a magnetic locator system comprising a single housing for housing the evaluation electronics and the sensor system within an interior of the housing and wherein the housing further has an opening there through for marking the medium (See Hirschi FIGS. 1, 3 and 4, note housing 12 and 14 illustrates as one piece unit). It would have been obvious at the time the invention was made to use a single housing in Garrett such that the apparatus of Garrett has a single housing enclosing the electronics and the sensor and including the opening. One having ordinary skill in the art would do so in view of the comment in Garrett noted above which states the sensor housing can be incorporated into a hand held housing (See Garrett col. 7, lines 18-21),

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which can be accomplished in view the illustration of Hirschi, which provides a hand held magnetic locator wherein the sensor housing is incorporated into the electronics housing to provide a single modular unit (See Hirschi FIGS. 1, 3, 4, housing 12/14).

Regarding claim 15, this combination teaches the sensor system has at least one inductive sensor for locating purposes (See Garrett FIGS. 1-9, item 45 or 45a).

Regarding claim 16, this combination teaches the inductive sensor includes a coil, the opening being oriented concentrically in relation to the coil of the inductive sensor (See Garrett FIGS. 1-9, note coil 45 or 45a in relation to housing with opening 32 or 32a).

Regarding claim 18, this combination teaches the opening is formed by a sleeve, the light source configured to illuminate the sleeve (See Garrett FIG. 9, note item 50a).

Regarding claim 19, this combination teaches the sleeve is made of an at least partially transparent plastic (See Garrett FIGS. 1-9, item 50 or 50a and see col. 3, lines 31-38).

Regarding claim 20, this combination teaches the sleeve is configured to scatter light diffusively (See Garrett FIGS. 1-9, item 50a, note material is translucent).

Regarding claim 23, this combination teaches the opening is variably illuminated as a function of a measuring signal of at least one sensor (See Garrett col. 7, lines 11-17).

Regarding claim 24, this combination teaches the light source includes a plurality of light sources (See Garrett FIG. 9, note plurality of bulbs 200).

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Regarding claim 27, Garrett teaches a hand-held locating device for detecting an object enclosed in a medium, comprising:

a housing having an opening penetrating there through (See Garrett FIGS. 1 and 9, item 32 or 32a or 50a);

at least one sensor system enclosed within the housing, the sensor system having at least one inductive sensor for locating purposes, the sensor being situated concentrically in relation to the opening (See FIGS. 1-9, note coil 45 or 45a in relation to housing with opening 32 or 32a);

evaluation electronics enclosed within another portion of the housing (See FIGS. 1 and 9, note item 22);

at least one light source provided in the measuring device configured to illuminate the opening (See FIG. 9, items 200); and

a handle attached to the housing, the handle situated in close proximity to the housing so as to permit an operator to grasp the handle while operating the device for marking a surface of the medium (See FIG. 1, item 30 and see col. 7, lines 18-21);

wherein the medium is situated outside of the locating device (See col. 7, lines 22-25, note the ground or a wall can be the medium which is located outside the device); and

wherein the housing includes an opening penetrating there through, the opening configured in size to guide a device for marking a surface of the medium (See Garrett FIGS. 1 and 9, item 32 or 32a or 50a, note that openings in the housing can accommodate a marker or pencil or other writing device therein or therethrough. Note

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also that the inner ring surface of the openings can be used to guide the marking device to draw a circle in the desired medium below the housing).

Garrett further teaches that the extension between the upper housing 22 for the electronics and lower housing 32, 32a or 50 for the sensor can be dispensed with such that the indicator assembly 32a is mounted on a small dimensional housing held directly by the operator (See Garrett col. 7, lines 18-21), but Garrett does not illustrate this embodiment. Hirschi teaches a magnetic locator system comprising a single housing for housing the evaluation electronics and the sensor system within an interior of the housing and wherein the housing further has an opening there through for marking the medium (See Hirschi FIGS. 1, 3 and 4, note housing 12 and 14 illustrates as one piece unit). It would have been obvious at the time the invention was made to use a single housing in Garrett such that the apparatus of Garrett has a single housing enclosing the electronics and the sensor and including the opening. One having ordinary skill in the art would do so in view of the comment in Garrett noted above which states the sensor housing can be incorporated into a hand held housing (See Garrett col. 7, lines 18-21), which can be accomplished in view the illustration of Hirschi, which provides a hand held magnetic locator wherein the sensor housing is incorporated into the electronics housing to provide a single modular unit (See Hirschi FIGS. 1, 3, 4, housing 12/14).

Regarding claim 28, Garrett teaches a hand-held locating device for detecting an object enclosed in a medium, comprising:

a housing having an opening penetrating there through (See Garrett FIGS. 1 and 9, item 32 or 32a or 50a);

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at least one sensor system enclosed within the housing, the sensor system having at least one inductive sensor for locating purposes, the sensor being situated concentrically in relation to the opening (See FIGS. 1-9, note coil 45 or 45a in relation to housing with opening 32 or 32a);

evaluation electronics enclosed within another portion of the housing (See FIGS. 1 and 9, note item 22);

at least one light source provided in the measuring device configured to illuminate the opening (See FIG. 9, items 200); and

a handle attached to the housing, the handle situated in close proximity to the housing so as to permit an operator to grasp the handle while operating the device for marking a surface of the medium (See FIG. 1, item 30 and see col. 7, lines 18-21);

wherein the medium is situated outside of the locating device (See col. 7, lines 22-25, note the ground or a wall can be the medium which is located outside the device); and

wherein the housing includes an opening penetrating there through, the opening configured in size to guide a device for marking a surface of the medium (See Garrett FIGS. 1 and 9, item 32 or 32a or 50a, note that openings in the housing can accommodate a marker or pencil or other writing device therein or therethrough. Note also that the inner ring surface of the openings can be used to guide the marking device to draw a circle in the desired medium below the housing).

Garrett further teaches that the extension between the upper housing 22 for the electronics and lower housing 32, 32a or 50 for the sensor can be dispensed with such

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that the indicator assembly 32a is mounted on a small dimensional housing held directly by the operator (See Garrett col. 7, lines 18-21), but Garrett does not illustrate this embodiment. Hirschi teaches a magnetic locator system comprising a single housing for housing the evaluation electronics and the sensor system within an interior of the housing and wherein the housing further has an opening there through for marking the medium and wherein the housing further has a display position on the housing and a control panel positioned on the housing having control elements thereon for the device (See Hirschi FIGS. 1, 1A, 3 and 4, note housing 12 and 14 illustrates a one piece unit comprising a display including items 22 and 24a-d or indicators on panel 16 as shown in FIG. 1A and control panels 16 and 18 for control). It would have been obvious at the time the invention was made to use a single housing in Garrett such that the apparatus of Garrett has a single housing enclosing the electronics and the sensor and including the opening. One having ordinary skill in the art would do so in view of the comment in Garrett noted above which states the sensor housing can be incorporated into a hand held housing (See Garrett col. 7, lines 18-21), which can be accomplished in view the illustration of Hirschi, which provides a hand held magnetic locator wherein the sensor housing is incorporated into the electronics housing to provide a single modular unit (See Hirschi FIGS. 1, 3, 4, housing 12/14).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Yamashita et al. (US4859931), hereinafter Yamashita. Regarding this claim, Garrett teaches the use of an inductive sensor arrangement, but not including a

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capacitive sensor. Yamashita teaches using both an inductive sensor and a capacitive sensor in the same device (See Yamashita col. 1, lines 33-65). It would have been obvious at the time the invention was made to incorporate a capacitive sensor into the metal detector of Garrett. One having ordinary skill in the art would do so to locate both metal and non-metallic objects (See Yamashita col. 1, lines 9-13).

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Audet (US6266006). Regarding these claims, Garrett teaches of the features of claim 14 as discussed above, but not a color coded light signal. Audet teaches an inductive metal/object detector having a light source that is illuminated with a color-coded light signal in at least two different colors (See Audet col. 3, lines 23-35). It would have been obvious at the time the invention was made to incorporate the color coded signal of the detector in Audet in the metal detector of Garrett. One having ordinary skill in the art would do so to provide a definite indication of the presence of an object (See Audet col. 3, lines 23-35).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Steber et al. (US6844713), hereinafter Steber. Regarding this claim, Garrett teaches the use of neon lamps for the light source, but not an LED. Steber teaches a stud finder using LEDs as light sources behind a translucent material (See Steber FIG. 12, note LEDs D2-D5 behind translucent windows 113). It would have been obvious at the time the invention was made to incorporate LEDs in lieu of the neon lamps in the

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apparatus of Garrett. One having ordinary skill in the art would do so because either can be used to provide a light signal through translucent material as shown in these references.

Allowable Subject Matter

Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. This claim is allowable for those reasons outlined in the Office Action mailed May 7, 2009.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are generally moot in view of the new ground(s) of rejection. The only argument asserted by Applicants for the patentability of the claims is that Garrett does not disclose or even suggest a housing having an interior in which both the sensor system and the electronics are enclosed.

However, this feature is at least suggested in Garrett at col. 7, lines 18-21 wherein Garrett states the sensor housing need not be mounted on a long handle, but the sensor housing can be incorporated into a hand-held housing. Thus, Garrett at least suggests a more compact system using one housing, but does not provide the detail thereof. Furthermore, Hirschi teaches a magnetic locator wherein the housing comprises an interior including the electronics, the sensor system and an opening there

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through. Accordingly, the combination of the two teaches the features of the claims as outlined above and a reason/suggestion for making such a combination.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **KENNETH J. WHITTINGTON** whose telephone number is (571)272-2264. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571) 272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth J Whittington/
Primary Examiner, Art Unit 2858

kjw